

The results of this data checking are then displayed by the AMS controller 100 on the GUI 160. Furthermore, the GUI 160 may also display error messages which may be text, graphics or mix of text and graphics.

The active test for the first module continues until it is completed. When it has, the method then rotates the test cycle. In this case, the first module which previously underwent an active test should next be subjected to a passive test. By rotating the test cycle, the method ensures that each module 15 under test undergoes each part of the test cycle.

The method then checks whether the burn-in test has completed (e.g. both modules have been subjected to the active and passive test cycles). If so, then it is time to reload the virtual oven (VO) and create a next logical grouping 30 of modules 15.

The right side of the flowchart in Fig. 8 illustrates the passive test cycle. As mentioned above, the left side actually conducts both active and passive testing. Therefore, the right side is actually a subset of the steps performed by the left half. Therefore further explanation for the passive test cycle is not necessary.

Fig. 9 illustrates a burn-in test for three (or more) modules 15 (labeled first, second and third modules). Fig. 9 is quite similar to Fig. 8 so only the differences therebetween will be highlighted here.

The main difference is the rotation of test cycle step. When three (or more) modules 15 are being tested the full test cycle will include one active test cycle and (n-1) passive test cycles where n is equal to the number of modules 15 in the logical group 30 being tested. Fig. 9 shows three modules so the test cycle (for the first module) is active-->passive-->passive-->done. The other two modules would start in the middle of this sequence as appropriate.

Another difference is the active and passive test cycle times. When three modules 15 are being tested, the total burn-in time may be divided into three equal parts so that the test equipment 25 is time-shared equally between the modules 15 under test. When n modules 15 are being tested, the total burn-in time is divided in n parts.

Alternatively, the test cycle times may be unequal so that, for example, the first module is subjected to the active test for a longer time than the other two modules. The test cycle times may be adjusted by a user via the GUI 160. Unequal test times may be advantageous for re-testing a component or for testing a troublesome component more rigorously than other, less troublesome components. Database 40 tracks each and every module 15 to enable easy identification of such troublesome components and a remedy therefor.

The test cycles may also start asynchronously. In other words, the active test cycle and the passive test cycle may start at different times. This may be particularly helpful when the test cycle durations are unequal. In this way, the testing resources may be most efficiently utilized.

Fig. 10 is an example of the displays that may be generated by the AMS controller 100 and displayed on GUI 160. The preferred display provides a summary view of all modules currently being tested in the virtual oven. The logical groupings 30 are shown and labeled as "Racks" in the display. Each logical grouping 30 or rack includes a plurality of modules 15 under test which is indicated by the plurality of bars within each rack. A gas gauge is overlaid on each bar (representing a module 15). As the test cycle progresses, the gas gauge increases in size.

Preferably the gas gauge overlays are color coded to indicate the test state. The color help menu shown in Fig. 10 illustrates exemplary color codes which may include:

<u>Test state</u>	<u>Color Code</u>
Board idle	Light Blue
5 Slot Configured	White
Pre Test	Yellow
Under Test	Dark Blue
Test Done, No Errors	Green
Paused	Grey
10 Stopped	Light Purple
Resume Test (Under Test)	Purple
Test Error	Red
Communications Error	Tan
Configuration Error	Brown

Of course, a subset of these test states may be used and the colors may be changed as desired. The range of test states and associated color codes permit an operator to immediately see the test progress of a large number of modules, the success or failure of the various tests, as well as diagnostic information on the burn-in system itself to aid in troubleshooting.